ZooKeys 150: 407–417 (2011)
doi: 10.3897/zookeys.150.2002
www.zookeys.org

DATA PAPER

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Literature based species occurrence data of birds of northeast India

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Academic editor: *L. Penev* | Received 2 September 2011 | Accepted 24 November 2011 | Published 28 November 2011

Citation: Narwade S, Kalra M, Jagdish R, Varier D, Satpute S, Khan N, Talukdar G, Mathur VB, Vasudevan K, Pundir DS, Chavan V, Sood R (2011) Literature based species occurrence data of birds of northeast India. In: Smith V, Penev L (Eds) e-Infrastructures for data publishing in biodiversity science. ZooKeys 150: 407–417. doi: 10.3897/zookeys.150.2002

Abstract

The northeast region of India is one of the world's most significant biodiversity hotspots. One of the richest bird areas in India, it is an important route for migratory birds and home to many endemic bird species. This paper describes a literature-based dataset of species occurrences of birds of northeast India. The occurrence records documented in the dataset are distributed across eleven provinces of India, viz.: Arunachal Pradesh, Assam, Bihar, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttar Pradesh and West Bengal. The geospatial scope of the dataset represents 24 to 29 degree North latitude and 78 to 94 degree East longitude, and it comprises over 2400 occurrence records. These records have been collated from scholarly literature published between1915 and 2008, especially from the *Journal of the Bombay Natural History Society* (JBNHS). The temporal scale of the dataset represents bird observations recorded between 1909 and 2007. The dataset has been developed by employing MS Excel. The key elements in the database are scientific name, taxonomic classification, temporal and geospatial details including geo-coordinate precision, data collector, basis of record and primary source of the data record. The temporal and geospatial quality of more than 50% of the data records has been enhanced retrospectively. Where possible, data records are annotated with geospatial coordinate precision to the nearest minute. This dataset is being constantly updated with the addition of new data records, and quality enhancement of documented occurrences. The dataset can be used in species distribution and niche modeling studies. It is planned to expand the scope of the dataset to collate bird species occurrences across the Indian peninsula.

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Keywords
India, northeast Himalaya, Assam, Arunachal Pradesh, Bihar, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, West Bengal, Uttar Pradesh, *Journal of the Bombay Natural History Society*, BNHS, Animalia, Chordata, Aves

Data published through GBIF: http://ibif.gov.in:8080/ipt/resource.do?r=BNHS-NEW

Taxonomic coverage

General taxonomic coverage description: The taxonomic coverage of this dataset spans Class Aves. The highest number of data records are from the family Muscicapidae (560 records), followed by Anatidae (180 records) and Accipitridae (136 records). The families with the least number of records are Hemiprocnidae, Podargidae, Indicatoridae with one data record each.

Taxonomic ranks

Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Podicipediformes, Pelecaniformes, Ciconiiformes, Anseriformes, Falconiformes, Galliformes, Gruiformes, Charadriiformes, Columbiformes, Psittaciformes, Cuculiformes, Strigiformes, Caprimulgiformes, Apodiformes, Trogoniformes, Coraciiformes, Piciformes, Passeriformes
Family: Podicipedidae, Phalacrocoracidae, Anhingidae, Ardeidae, Ciconiidae, Threskiornithidae, Anatidae, Accipitridae, Pandionidae, Falconidae, Phasianidae, Turnicidae, Gruidae, Rallidae, Otididae, Jacanidae, Rostratulidae, Charadriidae, Scolopacidae, Recurvirostridae, Glareolidae, Laridae, Rhynchopidae, Columbidae, Psittacidae, Cuculidae, Tytonidae, Strigidae, Podargidae, Caprimulgidae, Apodidae, Hemiprocnidae, Trogonidae, Alcedinidae, Meropidae, Coraciidae, Upupidae, Bucerotidae, Capitonidae, Indicatoridae, Picidae, Eurylaimidae, Pittidae, Alaudidae, Hirundinidae, Motacillidae, Campephagidae, Pycnonotidae, Irenidae, Laniidae, Troglodytidae, Prunellidae, Muscicapidae, Aegithalidae, Paridae, Sittidae, Certhiidae, Dicaeidae, Nectariniidae, Zosteropidae, Emberizidae, Fringillidae, Estrildidae, Passeridae, Sturnidae, Oriolidae, Dicruridae, Artamidae, Corvidae.

Spatial coverage

General spatial coverage: This dataset collates species occurrences from northeast India and neighboring regions. The occurrence records collated in the dataset are *Literature-based species occurrence data of birds of North-East India 3* distributed across

eleven provinces of India, viz.: Arunachal Pradesh, Assam, Bihar, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttar Pradesh and West Bengal. This region falls within the Himalayan mountain ranges, and spans an area of 234567 sq. km. The region borders with Bangladesh to the south, Bhutan to the west, Myanmar to the east and with China to the north. Minimum and maximum elevations are 2000 meters and 8000 meters above sea level respectively.

Coordinates: 24°30'0''N - 28°15'0''N Latitude; 78°22'58.8''E - 93°47'60''E Longitude.

Temporal coverage

1909–2007.

Project description

Title: This dataset is an outcome of the collaborative work carried out by three projects, viz.:, (a) Environmental Information System (ENVIS) Centre on Avian Ecology, Bombay Natural History Society, sponsored by the Ministry of Environment and Forests, Government of India; (b) Important Bird Areas Programme and Indian Bird Conservation Network (IBA-IBCN), sponsored by the Royal Society for Protection of Birds, United Kingdom; and (c) Impact of Climate Change on the Conservation of Birds, a project supported by the MacArthur Foundation.

Personnel: Sujit Narwade (Author, Content Provider, Metadata Provider), Mohit Kalra (Processor), Divya Varier (Custodian Steward/Metadata Provider), Rajkumar Jagdish (Processor), Sagar Satpute (Custodian Steward), Noor Khan (Custodian Steward), Gautam Talukdar (Publisher), V.B. Mathur (Publisher), Karthik Vasudevan (Publisher), Dinesh Singh Pundir (Publisher), Vishwas Chavan (Metadata Provider/Editor), Rajesh Sood (Metadata Provider/Programmer).

Funding: Ministry of Environment and Forests, Government of India, (Funding), the Royal Society for Protection of Birds, United Kingdom (Funding), MacArthur Foundation (Funding), Bombay Natural History Society (Host institution), and Wildlife Institute of India (publishing support).

Study area descriptions/descriptor: Northeast India is one of the most significant biodiversity hotspots of the world and among the richest bird zones in India. It is considered as the 'biological gateway' for much of India's fauna, as the Gondwana land first touched this region, during the Tertiary period. The north-eastern region is at the confluence of the Indo-Malayan, Indo-Chinese and Indian biogeographical realms. As a result, it is unique in providing a profusion of habitats that harbor diverse biota with a high degree of endemism (Chatterji et al. 2006).

Design description: The Environmental Information System (ENVIS) Centre at the Bombay Natural History Society (BNHS) is a focal point for collection, collation

and dissemination of data on avian ecology in India. The objective of this dataset is to collate avian observations documented in various research publications such as journals, magazines, newsletters, project reports, theses, books and other gray literature. However, the current version of the dataset collates occurrence records reported in research articles published in the *Journal of the Bombay Natural History Society* (JBNHS). The motivation for this approach is because of the dispersed availability of the occurrence records in published literature. Because these data records are documented in several literature sources, it is difficult to access them together, inspite of being in the public domain. Thus, for a potential user it is not possible to access and use them when he/she needs them the most. Another consideration is the quality of these data records, as they are published in peer reviewed literature and their quality is expected to be 'fit for use'. The data records were entered in a MS-Excel worksheet. The offline version of the dataset maintained by the Bombay Natural History Society is developed employing MS-Access. The key elements about which information is collated in the current version of the dataset includes: scientific name, common name, taxonomic classification, occurrence location, geo-coordinates, precision of geo-coordinates, date of observation, data collector, and primary source of the data record.

The data records were entered in the MS-Excel worksheet. The offline version of the dataset maintained by the Bombay Natural History Society is developed employing the MS-Access. The key elements about which information is collated in the current version of the dataset includes, scientific name, common name, taxonomic classification, occurrence location, geo-coordinates, precision of geo-coordinates, date of observation, data collector, and primary source of the data record.

Dataset description

Object name: Darwin Core Archive literature-based species occurrence data of birds of northeast India
Character encoding: UTF-8
Format name: Darwin Core Archive format
Format version: 1.0
Distribution: http://ibif.gov.in:8080/ipt/archive.do?r=BNHS-NEW
Publication date of data: 2011-06-30
Language: English
Licenses of use: by-nc-sa
Metadata language: English
Date of metadata creation: 2011-06-30
Hierarchy level: Dataset

Additional information

We are most thankful to the Ministry of Environment and Forests (MoEF), Government of India; the Royal Society for the Protection of Birds (RSPB), United Kingdom; and the MacArthur Foundation for financial support. We would like to express our deepest gratitude to Dr. Asad R. Rahmani, Director, BNHS and Principal Investigators of the aforementioned projects.

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Appendix I

Literature-based species occurrence data of birds of North-East India. (doi: 10.3897/zookeys.150.2002.app) File format: XLS

Explanation note: This is an Excel spreadsheet of the dataset, available through the Darwin Core Archive format at: http://ibif.gov.in:8080/ipt/resource.do?r=BNHS-NEW

Citation: Narwade S, Kalra M, Jagdish R, Varier D, Satpute S, Khan N, Talukdar G, Mathur VB, Vasudevan K, Pundir DS, Chavan V, Sood R (2011) Literature based species occurrence data of birds of North-East India. In: Smith V, Penev L (Eds) e-Infrastructures for data publishing in biodiversity science. ZooKeys 150: 407–417. doi: 10.3897/zookeys.150.2002.app